

The Benefits of Psychedelic Drug Application for Clinical Treatment of Mental Illness

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About the author:

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Introduction

The use of psychedelic drugs, such as lysergic acid diethylamide (LSD), \pm 3,4-methylenedioxymethamphetamine (MDMA), and 4-phosphoryloxy- N,N -dimethyltryptamine (psilocybin), in the clinical treatment of mental health disorders has sparked a broad spectrum ethical debate amongst both the medical field and the general public. This is due to the negative connotations of the drugs being illegal and that they are used by subpopulations of our society for recreational use.

The discovery of the psychedelic drug LSD in the 1940's was the beginning of the use of psychedelics for clinical trials in the United States. It was used for the clinical application in psychological treatment studies, but quickly fell into recreational use. By 1965, psychedelic studies had been performed on tens of thousands of people and had begun to yield positive results for treatment of drug addiction, anxiety, and pain of terminal cancer patients. The illicit use of these drugs had grown out of control by this time and legislation was soon passed in 1966 to make possession of psychedelics illegal; thus leading to the cessation of clinical trials being performed (Sessa, 2005). Since the 1960's several attempts to reestablish the use of psychedelics in clinical trials by the scientific and medical communities have failed to take hold. Recently clinical trials have begun once again and have shown some positive aspects of treatment in mental disorders. Even with these findings, researchers are still meeting resistance both from legal and ethical substantiations of our society. The purpose of this paper is to discuss the positive implications of the use of the psychedelic drugs towards mental well-being of patients and explore the role of a nurse in its clinical application.

Review of Literature

A recently published article in the 2010 *Journal of Psychopharmacology* describes the first pilot study of 3,4- methylenedioxymethamphetamine (MDMA), also known as ecstasy, in the management of chronic treatment resistant post-traumatic stress disorder (PTSD). The study consisted of a population of twenty patients who were suffering from medium to severe PTSD. They had received prior treatment for the disorder either in the form of multiple sessions of psychotherapy or had taken part in several medication trials with little to no success. The study was a double blind procedure that consisted of an open label cross-over segment in the study two months after the second experimental session, which allowed for the participants to continue the MDMA or begin use of the MDMA if they were the control group. To measure the outcome of the effects of the drug, the researchers used the Clinician Administered PTSD Scale (CAPS) before the trial began, four days after each session, and two months after the second session. The results of the experiment were a greater than thirty percent decrease from the baseline CAPS score, including the patients who were in the control group that decided to accept the second leg of the experiment and take the MDMA. The participants of this study had comparatively minimal side effects, both on the MDMA and the placebo. The study also contained three participants who were so debilitated by PTSD that they could not work and after going through the clinical trial they were able to return to work and function fully. The majority of the clinical participants after the trial of MDMA no longer met the criteria for the DSM VI diagnosis of PTSD (Mithoefer, Wagner, Mithoefer, Jerome, & Doblin, 2010).

The use of MDMA for the treatment of PTSD would seem to be controversial in many ways due to the lack of knowledge of drug use in a clinical setting and the overabundance of knowledge in the effects of its use on the street. With the growing number of U.S. soldiers

returning from war and suffering from PTSD, a further probe into its efficacy needs to be performed and this study should support further research.

There are many other treatments in the form of psychotherapy or legal pharmacotherapy drugs that are currently being researched with positive results like virtual reality exposure therapy and the use of D-cycloserine (Seromycin) (Cukor, Spitalnick, Difede, Rizzo, Rothbaum, 2009). However, all of these patients had previous treatments either in psychotherapy or pharmacology with little to no resolve to their PTSD symptoms. This would suggest that results vary depending on the patient. Many MDMA supportive psychotherapists “suggest that MDMA is entactogenic, that it stimulates the release of negative troublesome material from the past, and it fosters the bonding between client and therapist” (Parrott, 2010, p. 191). This theory could be explanatory as to why using MDMA in this study had positive results in reducing their PTSD levels to a functional level.

Another pilot study on the use of psilocybin for the reduction of anxiety in patients with advanced cancer was published by the *Archives of General Psychiatric* in January 2011. This was a double-blind placebo controlled study that allowed for the patients to be their own control. Twelve advanced stage cancer patients who were suffering from anxiety were given separate trials of psilocybin (0.2mg/kg) and a placebo (niacin) several weeks apart and were surveyed two weeks before the trial, after each trial, and six months after the study was done. The effects of the study were measured with Becks Depression Inventory (BDI), State-Trait Anxiety Inventory (STAI), and the Profile of Mood States (POMS). The results of the study showed a significant reduction in the patients’ anxiety over the evaluated period as shown by the STAI, as well as a positive improvement in overall mood of their situations as shown by the POMS. They also showed a thirty percent reduction in the depression scale rating as measured by the BDI of the

patients using the psilocybin. This was sustained over the 6 month study period. It is also important to note that no significant reaction to the psilocybin treatment was noted and the only side effects were a slight increase in heart rate and blood pressure that returned to normal within a few hours (Grob, Danforth, Chopra, Hagerty, McKay, Halberstadt, Greer, 2011).

The use of psilocybin in the treatment of anxiety in terminal cancer patients has also shown positive results, but they are also limited to the size of the study. The reduction of anxiety and mood elevation in patients suffering from terminal cancer are important parts of patient comfort especially when dealing with palliative care. According to commentary by W.G. (1960) on an article about the history of psilocybin and the pharmacological implications, “In small doses the drug produces a change in mood and in contact with the environment which is subjectively pleasant and consists of relaxation and detachment from the outside world” (p. 936). The use of moderate amounts, 0.2mg/kg of psilocybin, on the patients of the trials resulted in similar results as was suggested by this commentary that was made more than fifty years earlier. So why has there been such a delay on the medical and clinical use of these drugs on patients that could benefit from them?

The use of psychedelics in clinical trials has been very minimal and have been prevented due to several reasons. “Scientific research with psychedelics was almost entirely stopped through a combination of regulation, cessation of federal and other sources of funding, and social pressure on researchers” (Doblin et al., 2000, p. 47). The Controlled Substances Act classifies psychedelics as a schedule I drug, putting them in the highest restricted class and required scientists to register studies with the Drug Enforcement Agency (DEA). The Food and Drug Administration (FDA) must also give its approval to use these drugs but it has had several issues with the efficacy of psychedelics in clinical trials. It requires a very lengthy and stringent

review process and due to the high possibility of substance abuse and the evidence of major adverse effects in uncontrolled amounts the FDA it has been very limited in its approval of studies. Finally, a lack of political approval both in the FDA and the government caused by social pressures has limited the use of psychedelics in clinical trials (Doblin et al., 2000).

Conclusion

The implications of the use of psychedelics for psychological therapy in clinical trials have been one of controversy both legally and ethically. The positive results of the studies on the use of MDMA for the treatment of PTSD and the use of psilocybin on anxiety treatment of terminal cancer patients should be supportive enough to further studies with use of psychedelics in a clinical setting. The stigma that a drug is illegal should have no bearing on whether the drug should be used in a medical setting. Following this logic, an argument could be made for the banning of the use of opiate derivatives, such as Morphine Sulfate and Fentanyl, in a clinical setting because they are made from the opium plant that is also used to make heroin.

The most important aspect of treatment with these drugs is that they take place in a clinical setting in which professional psychiatrists and nurses are available to help guide patients through the experience. According to Johnson, Richards, and Griffiths (2008), "The monitors should be knowledgeable about the medical and psychological markers of potential adverse reactions to the drug. Furthermore, monitors should have significant human relation skills and be familiar with descriptions of altered states of consciousness induced by hallucinogens" (p. 610). As a nurse, knowledge of how a drug works and monitoring for side effects is a major part of our job because we are usually the party responsible for administering them. Nurses also interact with patients on a frequent basis and in a trial of psychedelic use our interpersonal skills would be of great importance as having a positive environment is conducive to yielding positive results.

The use of psychedelics in a clinical trial should be supported by both the public and medical community because of the numerous positive applications they have in treatment of patients.

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